UNITED NATIONS DEVELOPMENT PROGRAMME

UNDP

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APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF
INDIA

IPF: (1987-91) $156 120 000

(IND/90/032) - Computer Integrated Manufacturing (CIM)

Date of approval by the AC:[1]	8 May 1991
Expected duration:	Three years
Proposed executing agency:	Government in co-operation with UNIDO
Government implementing agency:	Ministry of Industry through Central Machine Tool Institute (CMTI)
Proposed UNDP contribution:	$2 352 500 Source of funds: IPF
Total UNDP budget:	$2 352 500

Project background

The machine tool industry and general engineering and manufacturing industries in India have witnessed rapid changes in recent years. Increasing demand for Computer Numerically Controlled (CNC) machines, the introduction and availability of low cost desk top computers, and the increasing use of computers in various design and manufacturing activities have set the stage for profound technological and structural changes.

Of particular importance are advances in the integration of computers in the design and manufacturing operations and functions in enterprises which have provided the machine tool industry with the means to develop products faster and with higher precision. The new technology which is known as Computer Integrated-Manufacture (CIM), aims at organizing all the aspects of Computer-Aided Design/Manufacture (CAD/CAM) with a computer as a focal point to achieve an integrated system with high productivity.

In India companies are increasingly installing new automation facilities and equipment, including CNC machines, computers, and CAD/CAM in an effort to be competitive. In recognition of this development and the pressures of the international market, a joint working group of industry and Government representatives established in preparation of the Eighth Plan (1990-95) stressed the need for automation of the Indian industry and recommended to strengthen demonstration, training and advisory services in this area (CNC, CIM etc.)

[1] This Fact Sheet reflects the status of the project/revision at the time it was approved by the Action Committee; modifications to the project/revision may have occurred subsequently.

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A CNC Centre and a Computer Aided Design facility for the metal working industry has already been set up at the Central Machine Tool Institute (CMTI) in Bangalore with the help of UNDP. The required infrastructure including technical facilities, trained manpower and information base is available and used by the industry through CMTI's consultancy services. Investment in CNC machines, of which some are now produced domestically, is increasing and industries linked with the production of automobiles and auto-ancillaries, power generation equipment, machine tools and industrial machinery have started using Flexible Manufacturing Systems (FMS) and CIM. The introduction of CIM technology is expected to lead to many diversified high technology spin-offs.

With a view to supporting and possibly accelerating the modernization of the Indian industry, UNDP has been requested to assist with the transfer and dissemination of the CIM technology.

Description of project

The immediate objectives of the project are to : (a) establish a manufacturing demonstration and industrial consultancy and simulation facility with complete integration of computer aided design, engineering, planning and production; and (b) enable the system to have an integrated CAD/CAM, work handling and tool handling facility so that the product can be manufactured from design concept up to finished product with fully integrated computerized automation.

Project activities will include: (a) establishment of a CIM Centre for providing assistance and consultancy to Indian industries; (b) creating a cadre of trained personnel, a CTM database, and a communication network, linking computers, CAD/CAM, CNC machines; and (c) developing communication as well as application software.

Inputs

UNDP will provide 28 work-months of expertise, one subcontract for integration of specific CIM components, 180 work-months of fellowship training, 10 study tours; and equipment, and miscellaneous costs.

Financial data

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Personnel	320 000
Subcontract	24 000
Training	1 093 500
Equipment	900 000
Miscellaneous	15 000
Total	2 352 500

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